

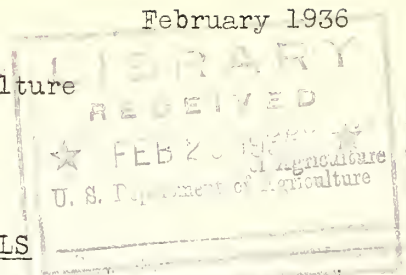
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United States Department of Agriculture  
Bureau of Animal Industry  
Animal Husbandry Division



ARTIFICIAL INSEMINATION OF FOWLS

Method of Obtaining Spermatozoa. Spermatozoa may be obtained from male chickens by a vigorous massage of the soft part of the abdomen. The response to this massage appears to be similar to that brought about by natural copulation since it results in the emission of spermatozoa from the cloaca of the male bird.

The method is best handled by two operators, one operator holds the male bird by its thighs with the body horizontal but the hand in a downward position. The abdomen of the bird is toward the second operator, the legs spread apart so that the abdomen is well exposed. The second operator then massages the soft part of the abdomen well above the gizzard and below the pelvic bones. The massage is usually most effective if applied with sudden jerky motions of the hand. A light stroke may be sufficient to obtain results from certain males while better results are sometimes obtained by a more vigorous massage.

Any type of massage on the soft part of the abdomen which causes the tail to be brought down quickly, as in natural copulation, will eventually produce semen. When the bird begins to ejaculate the semen, the operator intercepts it with a small beaker carried in the left hand. The beaker is held under the vent in such a way that the extruded copulatory organs may strike over its edge but care should be taken not to interfere with the downward stroke of the bird's tail.

In obtaining this reaction, however, it is quite important to hold the bird properly. If the legs are not spread fairly well apart, the proper reaction will not be obtained. Then when the male bird is about to bring his tail down, in response to the massage, the operator holding the bird can cooperate with the massaging operator by spreading the legs somewhat farther apart. Proper holding of the male bird is of primary importance, and we have failed to get results from trained male birds when the operator holding the bird has failed to handle him properly.

Technique of Artificial Insemination of Fowls. The technique of artificial insemination in fowls consists in a method of exposing the oviduct and the direct injection of the semen into the uterus. In order to expose the oviduct the hen is held with the left hand under the breast and the index finger between the legs. She is then placed in a head-downward position with her back against the operator's abdomen. While the hen is held firmly against the operator's body the left thumb and fingers are used to exert pressure on the lower abdomen. This pressure causes a slight protrusion of the vent. Supplementary pressure is now applied to the rear of the abdomen with

(over)

the thumb and forefinger of the right hand. This is done by placing the right hand so that the thumb and forefinger form an arch directly above the vent. The combined pressure on the lower portion of the abdomen and the rear of the abdomen will enable the operator to expose successfully both the orifice of the oviduct and the anal opening.

After some practice it will be found easy to exert more pressure with the forefinger of the right hand than with the thumb. This additional pressure of the forefinger on the underlying oviduct will cause the oviduct alone to become everted, leaving the anal opening concealed in the cloaca. The operator may readily acquire sufficient skill to expose the oviduct very quickly, and the injection of sperm requires but a few additional seconds.

After the orifice of the oviduct is exposed, a tuberculin syringe (without the needle attached) containing semen is inserted while the oviduct is held firmly in place and a steady pressure of the hands is being maintained on the oviduct. Then, with the syringe firmly placed in the exposed oviduct, the pressure on the abdomen is slowly relaxed and the syringe is allowed to enter the oviduct as far as it travels easily, usually a distance of about an inch. Then the semen is discharged from the syringe into the uterus. If the injection of the semen is carefully done there will be no visible evidence of the fluid at the orifice of the cloaca when the syringe is slowly withdrawn.

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